

**IN THE CLAIMS**

Please cancel pending claims 1 through 25 and replace with new claims 26, 27 and 28:

1-25. (cancelled)

26. (new) Antibodies that specifically bind a high molecular weight (HMW) polypeptide of a *Chlamydia* species which antibodies are present in antisera raised against an immunogenic composition comprising one or more polypeptides selected from the group consisting of:

- (a) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid comprising SEQ ID NO.: 1, 23 or 24;
- (b) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid comprising residues 466 to 3421 of SEQ ID NO.: 1, residues 82 to 3036 of SEQ ID NO.: 23 or residues 85 to 3039 of SEQ ID NO.: 24;
- (c) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid having at least 95% sequence identity with SEQ ID NO.: 1, 23 or 24;
- (d) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid having at least 95% sequence identity with residues 466 to 3421 of SEQ ID NO.: 1, residues 82 to 3036 of SEQ ID NO.: 23 or residues 85 to 3039 of SEQ ID NO.: 24;
- (e) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid sequence which hybridizes under conditions comprising 50% formamide and 37°C to a DNA sequence which is complementary to SEQ ID NO.: 1, 23 or 24 and encodes a protein which is recognized by an antibody that specifically binds to a protein comprising an amino acid sequence of SEQ ID NO.: 1, 15 or 16;
- (f) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid sequence which hybridizes under conditions comprising 50% formamide and 37°C to a DNA sequence which is

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complementary to residues 466 to 3421 of SEQ ID NO.: 1, residues 82 to 8036 SEQ ID No.: 23 or residues 85 to 3039 of SEQ ID NO.: 24 and encodes a protein which is recognized by an antibody that specifically binds to a protein comprising an amino acid sequence of residues 29 to 1013 of SEQ ID NO.: 15 or residues 29 to 1013 of SEQ ID NO.: 16;

- (g) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising the amino acid sequence shown in SEQ ID NO.: 2 or residues 29 to 1012 of SEQ ID NO.: 2
- (h) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising an amino acid sequence having at least 95% sequence identity with SEQ ID NO.: 2 or with residues 29 to 1012 of SEQ ID NO.: 2
- (i) a fragment of a high molecular weight (HMW) polypeptide of a *Chlamydia* species, said fragment consisting of at least seven consecutive amino acid residues of SEQ ID NO.: 2 wherein said fragment is recognized by an antibody that specifically binds a polypeptide comprising SEQ ID NO.: 2 or residues 29 to 1012 of SEQ ID NO.:2
- (j) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising the amino acid sequence shown in SEQ ID NO.: 15 or residues 29 to 1013 of SEQ ID NO.: 15;
- (k) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising an amino acid sequence having at least 95% sequence identity with SEQ ID NO.: 15 or residues 29 to 1013 of SEQ ID NO.: 15;
- (l) a fragment of a high molecular weight (HMW) polypeptide of a *Chlamydia* species, said fragment consisting of at least seven amino acids of SEQ ID NO.: 15 wherein said fragment is recognized by an antibody that specifically binds a polypeptide comprising SEQ ID NO.: 15 or residues 29 to 1013 of SEQ ID NO.:15;

- (m) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising the amino acid sequence shown in SEQ ID NO.: 16 or residues 29 to 1013 of SEQ ID NO.: 16;
- (n) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising an amino acid sequence having at least 95% sequence identity with SEQ ID NO.: 16 or residues 29 to 1013 of SEQ ID NO.: 16; and
- (o) a fragment of a high molecular weight (HMW) polypeptide of a *Chlamydia* species, said fragment consisting of at least seven amino acids of SEQ ID NO.: 16 wherein said fragment is recognized by an antibody that specifically binds a polypeptide comprising SEQ ID NO.: 16 or residues 29 to 1013 SEQ ID NO.: 16.

27. (new) Monoclonal antibodies that specifically bind a high molecular weight (HMW) polypeptide of a *Chlamydia* species produced from cell lines derived from spleen cells of animals administered an immunogenic composition comprising one or more polypeptides selected from the group consisting of:

- (a) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid comprising SEQ ID NO.: 1, 23 or 24;
- (b) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid comprising residues 466 to 3421 of SEQ ID NO.: 1, residues 82 to 3036 of SEQ ID NO.: 23 or residues 85 to 3039 of SEQ ID NO.: 24;
- (c) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid having at least 95% sequence identity with SEQ ID NO.: 1, 23 or 24;
- (d) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid having at least 95% sequence identity with residues 466 to 3421 of SEQ ID NO.: 1, residues 82 to 3036 of SEQ ID NO.: 23 or residues 85 to 3039 of SEQ ID NO.: 24;

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- (e) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid sequence which hybridizes under conditions comprising 50% formamide and 37°C to a DNA sequence which is complementary to SEQ ID NO.: 1, 23 or 24 and encodes a protein which is recognized by an antibody that specifically binds to a protein comprising an amino acid sequence of SEQ ID NO.: 1, 15 or 16;
- (f) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide encoded by a nucleic acid sequence which hybridizes under conditions comprising 50% formamide and 37°C to a DNA sequence which is complementary to residues 466 to 3421 of SEQ ID NO.: 1, residues 82 to 8036 SEQ ID NO.: 23 or residues 85 to 3039 of SEQ ID NO.: 24 and encodes a protein which is recognized by an antibody that specifically binds to a protein comprising an amino acid sequence of residues 29 to 1013 of SEQ ID NO.: 15 or residues 29 to 1013 of SEQ ID NO.: 16;
- (g) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising the amino acid sequence shown in SEQ ID NO.: 2 or residues 29 to 1012 of SEQ ID NO.: 2
- (h) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising an amino acid sequence having at least 95% sequence identity with SEQ ID NO.: 2 or with residues 29 to 1012 of SEQ ID NO.: 2
- (i) a fragment of a high molecular weight (HMW) polypeptide of a *Chlamydia* species, said fragment consisting of at least seven consecutive amino acid residues of SEQ ID NO.: 2 wherein said fragment is recognized by an antibody that specifically binds a polypeptide comprising SEQ ID NO.: 2 or residues 29 to 1012 of SEQ ID NO.: 2
- (j) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising the amino acid sequence shown in SEQ ID NO.: 15 or residues 29 to 1013 of SEQ ID NO.: 15;
- (k) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising an amino acid sequence having at least 95%

- sequence identity with SEQ ID NO.: 15 or residues 29 to 1013 of SEQ ID NO.: 15;
- (l) a fragment of a high molecular weight (HMW) polypeptide of a *Chlamydia* species, said fragment consisting of at least seven amino acids of SEQ ID NO.: 15 wherein said fragment is recognized by an antibody that specifically binds a polypeptide comprising SEQ ID NO.: 15 or residues 29 to 1013 of SEQ ID NO.: 15;
  - (m) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising the amino acid sequence shown in SEQ ID NO.: 16 or residues 29 to 1013 of SEQ ID NO.: 16;
  - (n) an isolated high molecular weight (HMW) polypeptide of a *Chlamydia* species, said polypeptide comprising an amino acid sequence having at least 95% sequence identity with SEQ ID NO.: 16 or residues 29 to 1013 of SEQ ID NO.: 16; and
  - (o) a fragment of a high molecular weight (HMW) polypeptide of a *Chlamydia* species, said fragment consisting of at least seven amino acids of SEQ ID NO.: 16 wherein said fragment is recognized by an antibody that specifically binds a polypeptide comprising SEQ ID NO.: 16 or residues 29 to 1013 of SEQ ID NO.: 16.
28. (new) A method for detecting the presence of *Chlamydia* in a test sample comprising the steps of:
- (1) contacting a test sample with the antibodies of claim 1 or 2 for a time sufficient to allow said antibodies to bind *Chlamydia*, if present, and to form a *Chlamydia*: anti-*Chlamydia* antibody immunocomplex and;
  - (2) either detecting the presence of or measuring the amount of said immunocomplexes formed during step (1) as an indication of the presence of said antibodies in the test sample.